

Appl. No. 10/054,134
Amdt. Dated December 6, 2005
Reply to Office action of September 6, 2005

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Amendment to the Drawing

The attached sheet of drawing adds reference number 44 inadvertently omitted for the network interface depicted in Fig. 6.

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Remarks/Arguments

A substitute Fig. 6 is being submitted to include the reference number 44 for the network interface, as specified at page 8, line 16 of the specification.

Claims 1-6 and 17 -24 have been rejected as anticipated, 35 USC 102(e), by Mansfield patent 6,759,450, claims 7-10 as unpatentable, 35 USC 103(a), over Mansfield, and claims 11-16 as unpatentable, 35 USC 103(a), over Mansfield in view of Lewis patent 6,393,261. In response thereto applicant has canceled claims 1-24 and is submitting in their stead new claims 25 - 28.

The Mansfield disclosure is very broad brush and basically contains no disclosure of the system or architecture of his multi-transceiver access point 10 and specifically of his transmission coordinator 12. However, one thing is clear from the Mansfield disclosure and that is that Mansfield prevents collisions in a Bluetooth frequency hopping system by muting, that is, as stated in the Mansfield Summary of the Invention at column 2, lines 33-34 by "permitting only one transceiver to transmit on any particular channel frequency at any one time." Note also that Mansfield's two independent claims 1 and 7 are precisely thus limited.

In contrast, applicant's invention, as now clearly set forth in the new claims 25-28, permits simultaneous transmission of packets over multiple channels even after detection of a predicted frequency collision. Specifically, as recited in independent claims 25 and 26, when there is prediction of a frequency collision between transmissions on a pair of channels, the size of the packets in one of the channels is changed to allow transmission to proceed simultaneously on both of the channels where the collision was predicted.

The Examiner, in rejecting prior claim 19, wherein the changing of the packet size had been recited, referred to Fig.9 of Mansfield and asserted that Mansfield changed the packet size "e.g., changing by muting frequency hop (22) of the channel hopping patterns of TRANSCEIVER 2 (see figure 9)." Applicant respectfully wishes to point out to the Examiner the internal contradiction in this statement, namely that affecting the muting frequency inherently states that what is being done is "muting" and not anything that will allow the transmission of the frequency hops simultaneously over the channels where the collision is predicted to occur. Further, there is nothing in Fig. 9 that shows, teaches, or in any way suggest changing of packet sizes. The only description of Fig. 9, at column 7, lines 5-6, also contradicts the Examiner's assertion. After describing the showing in Fig. 8 that collisions will occur, Mansfield states "As shown in Fig. 9, the transmission of 'hold' signals to transceivers 2 and 4 results in the collision free transmission by transceivers 3 and 5" This clearly states, that simultaneous transmission of the collision time slots does not occur in Mansfield, as the offending transmissions are on "hold" or muted, with, as stated in the Mansfield claims, only one transceiver being permitted to transmit in any particular channel frequency at any one time. This is, of course, directly

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opposite to what applicant's invention, as recited in the newly presented claims, allows to happen.

Applicant has assumed that the Examiner's position was not based on the theory that reducing a packet to zero size, that is, by blocking, holding, or muting it, is an example of changing the size of the packet. If that was the basis for the Examiner's peculiar position, it is clearly no longer valid as applicant's claims now specifically state that the packets on both transmission channels are transmitted, so one of them is clearly not changed in size to nothing.

Applicant also respectfully objects to the Examiner's assertion as to what is "inherently included" in Mansfield's transmission coordinator 12. Applicant submits that there is, in fact, no basis for the Examiner's assertion, for example with regard to prior claim 24, that the Mansfield's "terminal further comprises means (inherently included in or added to means (12) for changing the size of the packets transmitted by the subset of radio modules (see figure 9)". In fact, as discussed above, such a "means" would not only not be inherently included in the Mansfield transmission coordinator 12 but would contradict the operation of the Mansfield system as both disclosed and claimed.

The Lewis reference does not overcome the deficiencies of the Mansfield teaching, as it is relied upon solely for the disclosure of an interface to interconnect to a backbone network.

Applicant's new method claim 25 clearly distinguishes from Mansfield by reciting a method for avoiding transmission interference in a Bluetooth environment by the steps of extracting corresponding segments over a selectable number of future time slots, comparing them to detect a time in which a frequency collision is predicted, and then "changing the size of the packets on one of the channels to allow transmission to proceed simultaneously on both of the channels where the collision was predicted." Such is clearly neither disclosed nor obvious from Mansfeld.

New claim 26 directed to a Bluetooth terminal similarly distinguishes. As noted above, there is absolutely no disclosure in Mansfield on the circuitry or system architecture within his transmission coordinator 12, and applicant strenuously objects to the Examiner's assertion of what must "inherently" be included therein. In any event, there is nothing in Mansfield to suggest a pattern adjustment circuitry responsive to a prediction circuit and which causes a base band controller to change the size of the packets on one channel to allow transmission to proceed simultaneously on both of the channels where the collision was detected.

Dependent claims 27- 28 add further details of applicant's specific circuitry, including a replicator circuit, a test circuit, a memory, and a clock, interconnected as therein set forth. None of this is disclosed or suggested by Mansfield.

It is therefore respectfully submitted that new claims 25-28 are clearly patentable, and their favorable consideration and allowance are requested.

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It is believed that this application is now in condition to be passed to issue, and such action is also respectfully requested. However, if the Examiner deems it would in any way expedite the prosecution of this application, the Examiner is invited to telephone applicant's attorney at the number set forth below.

Respectfully submitted,

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